25. (Amended) The system recited in claim 24, further comprising:

a source filter server module to receive the real-time data values from the content provider; and update hash table.

REMARKS

Initially, in the Office Action dated January 16, 2003, the Examiner has objected to claims 10, 11, 15, 17 and 25 because of informalities. Further, claims 1-19 and 25 have been rejected under 35 USC §112, second paragraph.

Claims 1, 2, 12 and 20 have been rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,073,075 (Kondou et al.). Claims 3, 4, 13, 15-17, 21 and 23-25 have been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of U.S. Patent No. 6,292,743 (Pu et al.). Claim 5 has been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of Pu et al. and further in view of U.S. Patent No. 6,442,565 (Tyra et al.). Claims 6-11, 14, 18, 19, 22, 26 and 27 have been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of Pu et al. and further in view of U.S. Patent No. 6,173,316 (De Boor et al.).

By the present response, Applicants have amended claims 1, 4, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20 and 25 to further clarify the invention. Claims 1-27 remain pending in the present application.

Claim Objections

Claims 10, 11, 15, 17 and 25 have been objected to because of informalities. Applicants have amended the claims to further clarify the invention and respectfully request that these objections be withdrawn.

35 USC §112 Rejections

Claims 1-19 and 25 have been rejected under 35 USC §112, second paragraph. Applicants have amended the claims to further clarify the invention and respectfully request that these rejections be withdrawn.

The Examiner asserts that claims 1-11 are incomplete for omitting essential elements and asserts that such omission amounts to a gap between the elements, citing MPEP §2172.01. The Examiner asserts that the omitted elements are "the real time server", and that in the present form of claims 1-11, it is unclear where the method claim is to be performed. Applicants respectfully traverse these rejections and assert that claims 1-11 are method claims and MPEP §2172.01 does not state that it is a requirement to limit method claims by the insertion of structure (i.e., the real time server). Applicants assert that the limitations recited in the method in claim 1 are interrelated and adequately disclose the invention as described in Applicants' specification. Applicants submit that the invention defined in claim 1 is clear, and that as noted in MPEP §2173.04, "breath is not indefiniteness". Accordingly, Applicants respectfully request that these rejections be withdrawn.

35 USC §102 Rejections

Claims 1, 2, 12 and 20 have been rejected under 35 USC §102(e) as being anticipated by Kondou et al. Applicants respectfully traverse these rejections.

Kondou et al. discloses a mobile terminal, and an information providing method and system which immediately provides information, which the user of the mobile terminal desires, for the mobile terminal. Areas and related service information are stored in corresponding relationship in a database. An information server which includes means for calculating the area of a destination of the mobile terminal loads information on the destination area from the database to the mobile terminal which moves toward the destination area, using radio communication means before the mobile terminal arrives at the destination area.

Regarding claims 1, 12 and 20, Applicants submit that Kondou et al. does not disclose or suggest the limitations in the combination of each of these claims of, inter alia, receiving information from a content provider and transmitting the information to a user terminal where the information or real time data values from the content provider is monitored to determine if any of this has changed, and only the changed information is transmitted to the user terminal, wherein transmissions to the user terminal are optimized. According to the claims of the present application, network traffic is optimized by monitoring what portions of information out of all of the information being displayed has been changed and sending only those changed portions of information to the user terminal to update the screen. The transmitted information is real-time information, (e.g., the constantly changing score of a sporting event). Kondou et al. relates to a mobile terminal that requests newest situation information on a route to a destination and is provided this situation information by an information server. Kondou et al. mentions that some data is transmitted in real-time, but the data itself is static (i.e., the data is a map of nearby area). The mobile terminal updates its location information on the server which then sends the correct

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piece of map to the mobile terminal based on the direction that the mobile terminal is moving. Therefore, according to Kondou et al., even if the updated map to be sent to the user terminal includes portions common to the previous map based on the previous location of the user terminal, a new map is transmitted even though some information in the map may be common to the previous map. In contrast, the claims of the present invention recite that only the information that has changed is transmitted to the user terminal. Therefore, transmissions to the user terminal are optimized, by minimizing unnecessary transmission of the same information. Moreover, the map data disclosed in Kondou et al. is not real-time data, as recited in the claims of the present application, in that even though it may be transmitted in real time, the information itself (i.e., map data) does not constantly change (an entire new map is sent).

Regarding claim 2, Applicants submit that claim 2 is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted regarding this independent claim.

Accordingly, Applicants submit that Kondou et al. does not disclose or suggest the limitations in the combination of claims 1, 2, 12 and 20 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

35 USC §103 Rejections

Claims 3, 4, 13, 15-17, 21 and 23-25 have been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of Pu et al. Applicants respectfully traverse these rejections.

Pu et al. discloses a mobile navigation system where a client navigation system establishes a wireless connection to a navigation server on a computer network. The client requests a route by uploading start and stop specifications. The server calculates an optimal route based on real time data available on the network. A generic natural language description is used to specify the optimal route downloaded to the client.

Applicants submit that claims 3, 4, 13, 15-17, 21 and 23-25 are dependent on one of independent claims 1, 12 and 20 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims. Applicants submit that Pu et al. does not overcome the substantial defects noted previously regarding Kondou et al.

Accordingly, Applicants submit that neither Kondou et al. nor Pu et al., taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 3, 4, 13, 15-17, 21 and 23-25 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claim 5 has been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of Pu et al. and further in view of Tyra et al. Applicants respectfully traverse these rejections.

Applicants note that the Tyra et al. reference was not listed on the Examiner's PTO form 892 form as one of the references cited and examined by the Examiner. Applicants respectfully request the Examiner submit an initialed PTO Form 892 form with this reference listed as having been examined by the Examiner.

Tyra et al. discloses a system and method for transmitting data content and performing operations on the data content within a distributed system. Client machines within the system transmit to a server a request for a particular operation. The server constructs a response message, transmits it to the client, and also transmits it to other machines including a reference to the requested information.

Applicants submit that claim 5 is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted regarding this independent claim. Applicants submit that neither Pu et al. nor Tyra et al., taken alone or in combination, overcome the significant defects noted previously regarding Kondou et al. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 5 of the present application. Applicants respectfully request that this rejection be withdrawn and that this claim be allowed.

Claims 6-11, 14, 18, 19, 22, 26 and 27 have been rejected under 35 USC §103(a) as being unpatentable over Kondou et al. in view of Pu et al. and further in view of De Boor et al. Applicants respectfully traverse these rejections.

De Boor et al. discloses a system, method, and software product that provides a wireless communication device with a mark up language based man-machine interface. The man-machine interface provides a user interface for the various telecommunications functionality of the wireless communication device, which is defined in mark-up language, such as HTML and accessed through a browser program executed by the wireless communication device.

Applicants submit that claims 7-11, 14, 18, 19, 22 and 26-27 are dependent on one of independent claims 1, 12 and 20 and, therefore, are patentable at least for

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the same reasons noted previously regarding these independent claims. Applicants submit that neither Pu et al. nor De Boor et al., taken alone or in combination, overcome the substantial defects noted previously regarding Kondou et al. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 6-11, 14, 18, 19, 22, 26 and 27 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-27 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees and excess claim fees, to Deposit Account No. 01-2135 (referencing case No. 0171.38083X00) and please credit any excess fees to such deposit account.
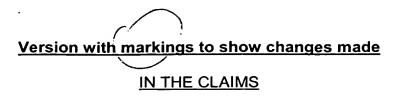
Respectfully submitted,

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IN THE CLAIMS

Please amend the claims as follows:

1. (Amended) A method of receiving information from a content provider and transmitting the information to a user terminal, comprising:

receiving information from the content provider;

displaying at least a portion of the information on the user terminal;

monitoring the information from the content provider to determine if any of the portion of the information being displayed on the user terminal has changed;

updating the information from the content provider that has changed; and

transmitting <u>only</u> the information from the content provider that has changed to the user terminal<u>, the changed information being real-time information,</u>

<u>wherein transmissions to the user terminal are optimized</u>.

4. (Amended) The method recited in claim 3, wherein the transmitting of the plurality of real-time data values that have been updated~ in the hash table to the user terminal further comprises:

activating a data thread when a real-time data value of the plurality of prior real-time data values is updated in the hash table;

determining the position on a screen in the user terminal corresponding to the real-time data value;

transmitting the real-time data value to the user terminal; and

displaying the [time] real-time data value on the screen in the user terminal in the position indicated.

10. (Amended) The method recited in claim 9, comprising:

notifying a data server thread when a real-time data value of the plurality of data that values [has] have changed.

11. (Amended) The method recited and claim 6, comprising:

activating an embedded applet received from the data server thread in the user terminal;

determining whether a page changed is required;

informing [to] the data server thread of a plurality of new active keys;

receiving the plurality of real-time data values from the data server thread; and

updating the screen on the user terminal associated with each time data value of the plurality of real-time data values.

12. (Amended) A computer program executable by computer and embodied on a computer readable medium for receiving a plurality of real-time data values from a content provider and transmitting the real-time data values to a user terminal, comprising:

a user terminal code segment to receive real-time data values; and

a real-time data server code segment to receive real-time data values from a content provider, determine if any of the real-time data values have changed from a prior real-time data values and transmit the changed real-time data values to the user terminal when any of the real-time data values have changed from the prior

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real-time data values;

wherein transmissions to the user terminal are optimized.

14. (Amended) The computer program recited in claim 13, wherein the real-time data server code segment further comprises:

a web engine server module code segment to access a database having a portfolio generated by a user and generate an HTML page and applet, wherein upon receipt of a connection request from the user terminal the web engine server module code segment downloads the HTML page and applet to the user terminal code segment.

15. (Amended) The computer program recited in claim 13, wherein the real-time data server code segment further comprises:

a source filter server module code segment to receive real-time data values from a content provider and determine if the real-time data values have changed from prior real-time data values stored [and table], and activate a data thread code segment when the real-time data values have changed from prior real-time data values.

16. (Amended) The computer program recited in claim 15, wherein the real-time data server code segment further comprises:

a real time data server module code segment to communicate between the user terminal code segment and the source filter server module code segment through the data server thread code segment.

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17. (Amended) The computer program recited in claim 16, [where and source filter server module] further [comprises] comprising:

a source filter server module code segment to receive the real-time data values from the [values] content provider; and update the hash table.

18. (Amended) The computer program recited in claim 13, wherein the user terminal further comprises:

a HTML page and JavaScript module code segment to display a screen on the user terminal code segment; and

an embedded applet code segment to update the screen for the user terminal code segment when the [time] real-time data values are received from the real-time data server code segment.

19. (Amended) The computer program recited in claim 13, [wherein the web engine server module] further [comprises] comprising:

a web server module code segment to communicate to the user terminal code segment and retrieve a portfolio specified by the user terminal code segment from a database; and

a pagination engine module code segment, in communication with the web server module code segment, to create the HTML page and applet code segment based on the portfolio selected and the size of the screen on a user terminal.

20. (Amended) A system to receive a plurality of real-time data values from a

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content provider and transmitting the real-time data values to a user terminal, comprising:

a user terminal to receive real-time data values; and

a real-time data server to receive real-time data values from a content provider, determine if <u>any of</u> the real-time data values have changed from prior real-time data values and transmit the <u>changed</u> real-time data values to the user terminal when <u>any of</u> the real-time data values have changed from the prior real-time data values<u>,</u>

<u>wherein transmissions to the user terminal are optimized</u>.

25. (Amended) The system recited in claim 24, [where and source filter server module] further [comprises] <u>comprising</u>:

a source filter <u>server</u> module to receive the real-time data values from the [values] content provider; and update hash table.